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12-27-02

DOCKET NO.: S01448.70000.US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: AWAD et al.  
Serial No: 09/925,194  
Confirmation. No.: 4327  
Filed: August 8, 2001  
For: METHOD AND APPARATUS FOR PROVIDING AN ERROR  
CHARACTERIZATION ESTIMATE OF AN IMPULSE RESPONSE  
DERIVED USING LEAST SQUARES  
Examiner: Robert W. Beausoliel Jr.  
Art Unit: 2184

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, Washington, D.C. 20231, on the 13<sup>th</sup> day of December, 2002.

*Denise M. Donahue*  
Denise M. Donahue

Commissioner For Patents  
Washington, D.C. 20231

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Sir:

Transmitted herewith are the following documents:

**Technology Center 2100**

- ☒ Information Disclosure Statement
- ☒ PTO Form 1449 with cited references
- ☒ Copy of International Search Report dated November 13, 2002
- ☒ Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 720-3500, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,  
*AWAD et al., Applicants*

By: *John M. Anastasi*  
John M. Anastasi, Reg. No.: 37,765  
Wolf, Greenfield & Sacks, P.C.  
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Telephone: (617)720-3500

Docket No. S01448.70000.US  
Date: December 13, 2002  
xNDDx



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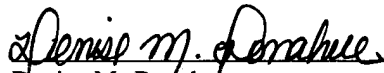
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Denise M. Donahue

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Commissioner for Patents  
Washington, D.C. 20231

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case.

No fee or certification is required.

**PART II: Compliance with 37 CFR §1.704(d)**

Each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart application and this

communication was not received by the office of the undersigned more than 30 days prior to filing of this Information Disclosure Statement.

### PART III: Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the enclosed Search Report from a corresponding International Application No. PCT/CA02/01141.

### PART IV: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

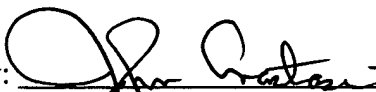
By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

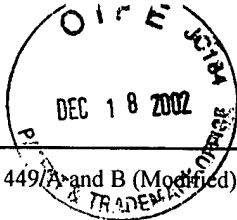
Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,  
AWAD et al., *Applicants*

By:   
\_\_\_\_\_  
John N. Anastasi, Reg. No. 37,765  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617) 720-3500

Docket No. S01448.70000.US  
Date: December 13, 2002  
**XNDDX**



<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		APPLICATION NO.: 09/925,194	ATTY. DOCKET NO.: S01448.70000.US
		FILING DATE: August 8, 2001	CONFIRMATION NO.: 4327
		APPLICANT: AWAD et al.	
		GROUP ART UNIT: 2184	EXAMINER: Robert W. Beausoliel Jr.
Sheet		of	

#### U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	1	5,062,102		Taguchi	10-29-1991

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#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	2	EP	0872962	A2	Nokia Mobile Phones LTD.	10-21-1998	N
	3	GB	2164828	A	International Standard Electric Corp.	03-26-1986	N

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No.	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	4	Deisher M E et al., "Practical Considerations in the Implementation of a Frequency-Domain Adaptive Noise Canceller", IEEE Transactions on Circuits and Systems, II: Analog and Digital Signal Processing, IEEE Inc. New York, US, vol. 41, no. 2, February 1, 1994, pages 164-168, XP000443037	

EXAMINER	DATE CONSIDERED
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#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.  
Include copy of this form with next communication to applicant.